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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,362	03/21/2001	Lucas M. Jenison	10559-379001	3922

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EXAMINER	
FLEMING, FRITZ M	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/814,362	JENISON ET AL.	
	Examiner	Art Unit	
	Fritz M Fleming	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is to be noted that there is a discrepancy between the claims and the disclosure. As best as the examiner can understand the claims in light of the specification, it appears as though an initial check for low resources is made (i.e. 225). If there are no low resources detected, then the packets are copied to the host memory (i.e. at 265). However, if low resources are detected, it appears as though a current array offset is marked (i.e. 230) and then subsequent packets are flagged (i.e. 235). Once the array has been processed (i.e. 240), the resources are re-checked for a low condition (i.e. 245), upon which a bifurcation is shown. If the resources are found to not be low (i.e. 250), there is a return to the marked array offset (i.e. 250) with a removal of the buffering flags (i.e. 255) followed by a copying of the packets to the host (i.e. 265). If the resources are found to be low (i.e. 260), then the packets are copied to an OS buffer (i.e. 260), followed by a copying of the packets to the host memory (265). According to the disclosure, there seems to be only a single re-

check of the resources following the completion of the packet array processing. Once the re-check has been accomplished, it appears as though there is either a removal of all flags with a copy to host memory (no low resources) or a copy to OS buffers followed by a copy to host memory (low resources). There seems to be no indication that there is some kind of partial copy of flagged packets to OS buffers followed by a copy of the remaining unflagged packets to the host memory. The claims (i.e. 1 and 14) appear to indicate that after the resource condition has been re-checked, that there is a removal of all flags promptly followed by a copying of flagged packets to a buffer and then a copying of all remaining packets to the host memory. Thus there is a discrepancy involving the disclosure and claims, in that the claims clearly indicate that, upon a re-checked low resource condition, that some packets remain flagged for copying to the OS buffer(s) and the remaining unflagged packets are copied to host. The claims clearly indicate that the re-check for low resource conditions occurs only after the all of the array has been processed (page 6, [0013]). Thus it appears as though, initially, all packets of the array are either flagged (re-check is low resource) or are unflagged (re-check is no low resource). Thus it appears as though either all packets are flagged and copied to the OS buffer and then to the host, or all packets have the flags removed, and there is only a copying of the packets to the host. There appears to be no support for a copying of all flagged packets to the buffer with a copying of all remaining flagged packets to the host. The specification seems to support either that all packets are copied to the buffer and then to host, or that all packets are copied to the host. It is simply unclear how the condition could exist, how there could be a condition of some

packets (all of the flagged ones) copied to the buffer, and the remaining packets (all of the unflagged ones) copied to the host. Note that the same applies to claims 8-13, although claim 8 is broader in scope. However, when the claimed subject matter of claims 8-13 are considered in their totality, then the same analysis form above applies. Applicants are respectfully requested to carefully review the disclosure and the claims and drawings to ensure there is a continuity and clarity of subject matter, with correction and/or clarification respectfully requested.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

First of all, there is a lack of antecedent basis for the claim 1, lines 3-4, "in the shared memory subsystem". Claim 2 then makes matters more unclear, in that "into a shared memory" is claimed. Claim 4 seems to be redundant as there has already been a copying to the host.

Claim 9 uses the term "limited" when the term "low" has been used throughout, thereby rendering the claim vague as to its scope as "limited" does not necessarily mean "low" per the disclosure. Claim 11 does not clearly set forth where in the overall flow the receiving and copying is to take place.

Claim 14, lines 5-6, present "in the network" without proper antecedent basis. Similarly, claim 17 does not clearly indicate where in the overall flow, the determining is to occur.

Additionally, for example in claim 1, if the recheck determines low resource conditions, it is unclear if the last two copying steps are to be carried out only when the conditions are low, or under all circumstances.

Finally, based on the above discussion regarding the specification, it is unclear exactly what is claimed, regarding which packets remain flagged for copying to the buffer(s) and then to the host memory, and which packets are thus deemed to be remaining, for the purposes of copying to the host. Thus the claims seem to indicate that some packets remain flagged, while others are remain flagged, as the scope of the claims clearly indicates a condition of flagged/unflagged packets after the re-check of resources.

Thus, per MPEP 2143.03:

Compare In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970) (if no reasonably definite meaning can be ascribed to certain claim language, the claim is indefinite, not obvious) and In re Steele, 305 F.2d 859,134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

Per the above analysis, it is clear that speculative assumptions would have to be made, regarding the meaning of the claims, and therefore the examiner is unable to render a proper rejection on art at this time. Applicants must clearly set forth a complete and consistent methodology in the claims (i.e. to clearly indicate when each step occurs, to clearly indicate the braches of the flow chart to indicate the bifurcation at each check of

resources at 225 and 245), as it is clear that a particular sequence occurs under certain circumstances, and these need to be clearly set forth.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Connor shows buffer allocation at 140. Minnick shows the use of EEPROM and driver and buffer. Osborn shows the use of a memory 42 and buffer lists 60,62. Hausman et al. teach the use of a check for an entire packet received at 530. Gaur teaches the use of a check on the available number of packet buffers. Jenison et al. is the instant published application. Connor et al. teach the use of a low resource state check at 235. Connor teaches low resource check at 412. Nogradi teaches the use of available buffer count at 138. Connor et al. '503 show latency control. Ng shows shared memory 108 and buffers 412. Cedros et al. teach end of packet check at 309. Muller et al. teach the use of shared memory such that no more than one copy of a given packet is ever stored therein (abstract). Lee et al. teach the use of buffer availability check at 306. Yang et al. teach the use of copy data to buffer at 235. IBM discloses various styles of buffering. Thus the cited references should be considered as pertinent when drafting the response.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 703-308-1483. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-1483. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fritz M Fleming
Primary Examiner
Art Unit 2182

fmf